

REMARKS

The rejection of claims 1-3 and 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cohen (U.S. Patent No. 594271) taken together with AgAttack article is respectfully traversed.

The Office states that Cohen discloses a protein supplement used to feed insects, such as *Orius insidiosus*, wherein said supplement comprises insect eggs and being in the form of a homogenate paste with particles therein. The Office then states that Cohen further discloses *Ephestia Keuhniella* as a source of said insect eggs. In addition, Cohen discloses a supplement which increases the fecundity of the feeding insects. The Office further states that the claims call for the use of insect eggs in an amount that would increase the fecundity of eggs reared on such supplement. The Office then states that Cohen is silent regarding the connection between the use of *Ephestia keuhniella* eggs directly achieves an increase in fecundity and that AgAttack teaches rearing of *Orius insidiosus* on a feed including *Ephestia* eggs directly achieves an increase in fecundity. The Office states that it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to have employed *Ephestia* eggs of Cohen to achieve such fecundity as taught by AgAttack and to have arrived at the effect amount through routine experimental optimization. The Office continues that the instant claims further call for said homogenate to have been purified by certain methods. The Office states that when considering the preparation of a feed product, particularly one with a benefit, it is notoriously well known to provide purification of ingredients to maximize said benefit and remove the presence of contaminants and gives an example of it being well known to purify food ingredients prior to preparation of foods and delivery to same to the consumer. The Office then states that likewise, with an insect feed as set forth in Cohen, as modified as above, it would have been further obvious to have included a purification of the ingredients including insect eggs. The Office finally states that it is not seen where the method set forth in the claims would provide for an unexpected result in that the instant claims are drawn to the end product and not the steps of preparing same and that it does not lend patentable distinction to the product claims.

Applicants respectfully submit that the combination of Cohen in view of AgAttack fails to render the instantly claimed invention *prima facie* obvious. The medium described and claimed by Cohen is "free from insect components". (col. 4, line 18) Cohen et al does not teach the use of a protein supplement of *Orius insidiosus* as a homogenate paste. Cohen et al in fact teaches away from the use of insect eggs as a rearing medium, stating there is no difference in fecundity between insects grown on his artificial medium and those grown on insect eggs and by stating that insects grown on the artificial medium taught by Cohen are larger and faster than those grown on insect eggs, *Sitotroga*'s eggs in particular. See for example **Col 9, lines 53-57**. Cohen et al does not teach the use of a protein supplement of *Orius insidiosus* as a homogenated paste. The reference clearly teaches the use of ground beef and beef liver and exemplifies other sources such as fish innards, lamb, pork, chicken and cells derived from animals including insects, and propagated and multiplied using cloning techniques as known to those skilled in the art (See column 6, lines 30-37 of Cohen). In column 5, lines 40-50, the Cohen patent teaches the use of blended hen's egg for the preparation of an adherent, fibrous reticulum suitable for the growth medium of the invention. Cohen teaches that commercial production of beneficial insects is expensive because the producers use eggs of *Ephestia* and *Sitotroga* which make the beneficial insect too expensive for use to control pests in large scale open field type agricultural settings. See column 9, lines 28-38. Cohen fails to teach the use of a homogenate of host insect eggs on which a beneficial insect feeds or a medium containing the homogenate or a purified homogenate or a medium containing a purified homogenate as claimed.

AgAttack fails to cure the deficiencies of Cohen. AgAttack teaches the use of a medium and of whole insect eggs for rearing beneficial insects with the first feeding to be preferably with insect eggs as is done in the industry and the second feeding with an artificial medium as taught by Cohen. AgAttack further teaches that *Orius insidiosus* can not be successfully reared on artificial diet packets alone, which teaches away from what Cohen teaches. No where does the combination of references teach a homogenized egg homogenate or a medium containing a homogenate of insect eggs, they in fact teach away from this result. The combination fails to teach one of ordinary skill in the art at the time the claimed invention was made how to make and use the instantly claimed invention.

The combination of references would teach one of ordinary skill in the art to feed beneficial insects with eggs of insects followed by a second feeding of an artificial diet in order to improve fecundity. The combination of references fails to provide any motivation, teaching, or suggestion that would lead one of ordinary skill in the art at the time the claimed invention was made how to make and use the instantly claimed invention. The Office is using the improper standard of **IMPROPER hindsight** analysis. It is impermissible to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered *prima facie* obvious.

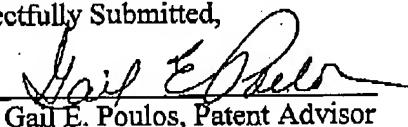
The Office is also using the improper standard of obvious to try. It is respectfully submitted that the essence of obviousness does not arise by merely picking and choosing from the prior art to produce the claimed invention. "In order to establish *prima facie* obviousness, it is necessary for the Examiner to present evidence preferably in the form of some teaching, suggestion, incentive, or general available knowledge, that one of ordinary skill in the art would have been led to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention." Ex. Parte Levengood, 28 USPQ2d, 1300 (Bd. Pat. & Int'l, 1993). Starting from this correct standard of obviousness, the error of the Office is clear—it is improper because the Office has failed to identify teachings in the prior art motivating the skilled artisan to produce the device of the presently claimed invention. No references or combination of references have been provided which would teach suggest, or motivate one of ordinary skill in the art to modify Cohen to provide an insect egg homogenate or artificial medium containing the homogenate of the instantly claimed invention. The AgAttack reference fails to cure the deficiencies of Cohen. There is simply no motivation save for the teachings of applicant's application to produce the claimed invention.

In view of the above remarks, it is believed that all of the claims are in condition for allowance. Accordingly, it is respectfully requested that the instant application be allowed to issue. If any issues remain to be resolved, the Examiner is invited to telephone the undersigned at the number below.

In the event this paper is deemed not timely filed, the undersigned hereby petitions for an appropriate extension of time. Please charge any fees which may be required by this paper or at any time during prosecution of the instant application, or credit any overpayment, to deposit account 50-2134.

Respectfully Submitted,

June 21, 2007  
DATE

  
Gail E. Poulos, Patent Advisor  
Registration No. 36,327  
USDA-ARS-OTT  
5601 Sunnyside Avenue, Room 4-1184  
Beltsville, Maryland 20705-5131  
Telephone: (301) 504-5302

cc:  
J. Fado  
Ferkovich et al.

CERTIFICATE OF FILING VIA FACSIMILE

The undersigned hereby certifies that the attached **AMENDMENT AFTER FINAL REJECTION** and **NOTICE OF APPEAL** was this day, June 21, 2007 filed in the United States Patent and Trademark Office via facsimile to facsimile number 571-273-8300. Total Pages: 7

  
Gail E. Poulos